NAVILOCK®

NL-464US
User Manual (60122)

1. Introduction

The NL-464US is a USB GPS receiver with internal antenna and a 20 channel Sirf3 GPS chipset. The USB interface enables the connection to a notebook, UMPC, tablet- or Car PC. Due to its extreme compact design it acts as ideal companion on every tour.

1.1. Package content*

1x Navilock NL-464US
1x USB extension cable
1x 8cm CD ROM (incl. manual)

*Make sure that the product package contains all items before operation. If any item is missing or damaged, then please contact your dealer immediately.

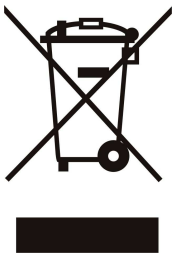
Important health- and security information

If you use this product you should take precautions to avoid damages and legal consequences. Follow precisely all security- and handling advice and keep it carefully. Pay attention to all warning notices in the manual and on the device. To avoid injury, electric shock, fire and damages on the device, please pay attention to the following notices.

Electrical Security

This product is intended for operation with power via USB connection. Any other application can be dangerous and lead to loss of any warranty claim for this product.

NOTE: RECYCLE OR DISPOSE THE DEVICE ACCORDING TO THE APPLICABLE REGULATIONS.



SECURITY ADVICE REGARDING DIRECT SUNLIGHT

Make sure the device is not exposed to over humidity and extreme temperature. Don't let the device for too long in a vehicle or other places where the temperature can rise up to 60℃ (140℉), e.g. on the dashboard, windowsill or behind a glas panel, which is exposed to high UV-Light or the sun. In this case the device or the vehicle can be damaged.

Damages, which require a repairing

Disconnect in the following cases the device from the USB port and contact an authorized repairing specialist or the dealer:

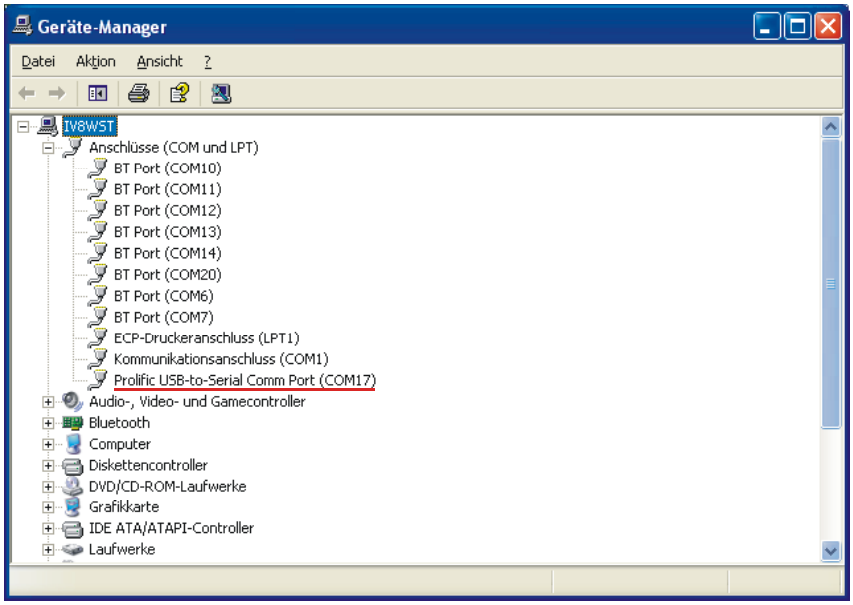
• Liquidity or any item came into the product.
• The product was exposed to rain or liquidity.
• The product fell down and is damaged.
• There are visible signs of overheating.
• The product does not work properly despite of correct operation.

Avoid using the device right after high thermal fluctuation. Condensation in the device might occur if you expose the device to high thermal or humidity fluctuation. In order to avoid damages wait until the humidity is evaporated, before using it.

NOTE: If you bring the device from a cold into a warm or from a warm into a cold environment, let the device take over the temperature before switching it on.

2. Operation

Connect the USB receiver to a free USB port of your notebook etc.. The NL-464US will be recognized by your Windows OS and a your system will try to install a driver. Cancel this operation and start the respective installation from the CD ROM under the menu driver. Follow the instructions of the installation. After the installation is finished please re-start your system. Afterwards the GPS COM port will be available under ports in the device manager. Please set this port in your navigation- or routeplanner software. Please do not use any other program at the same time, which accesses this port.



3. LED indication

- Flash, with Satfix
- Light, without Satfix

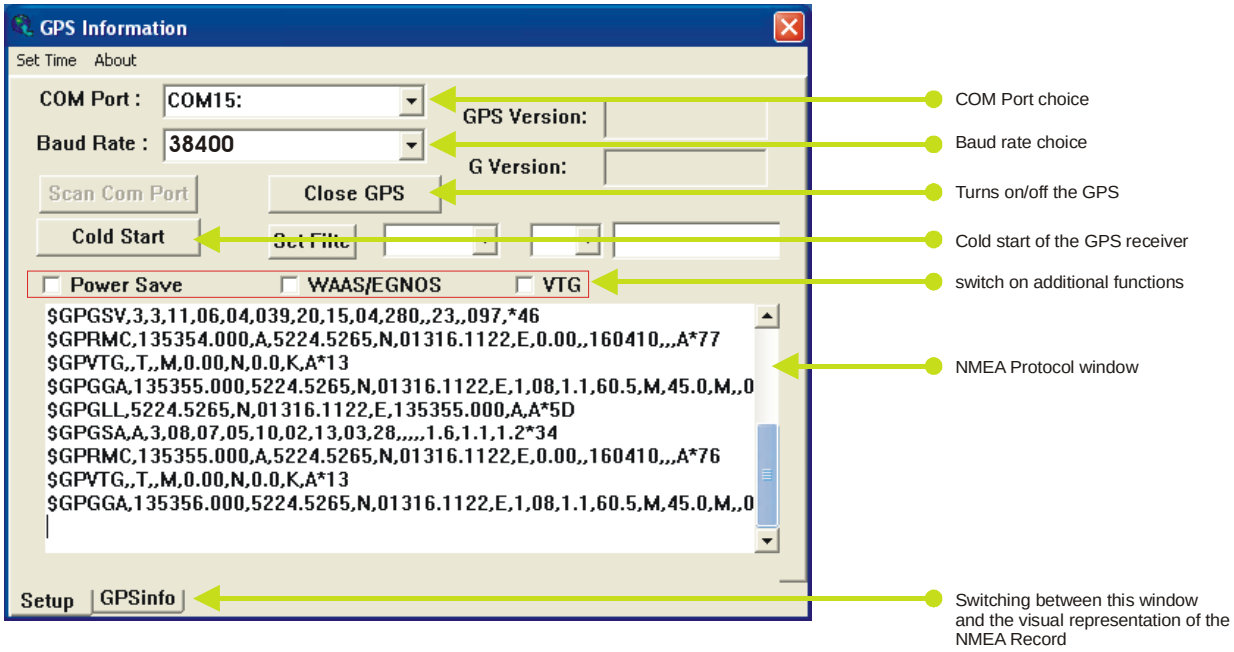
4. Operating area

The NL-464US can be used as GPS receiver under Windows 2000/XP/Vista/7, Linux RedHat 7.3, 8, 9, MacOS 8, 9 and 10. A respective driver can be found on the CD ROM.

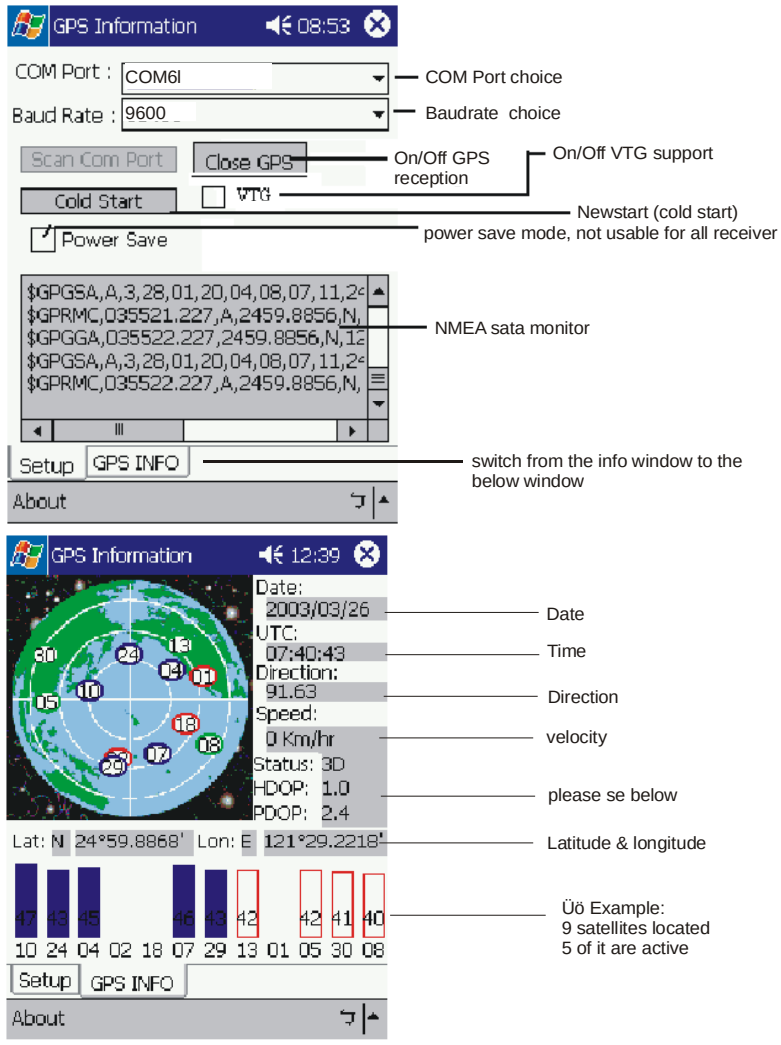
5. Functiontest with GPS Info

1. Install the GPS Info software on your device. Choose the respective version for your system. On the CD you can find versions for Windows 98SE, Me, W2K, XP, Vista, 7 and WM5 – also usable for WM6.
2. GPS Info is only a Testprogram and cannot be used for navigation or orientation. After testing it has to be closed! Please make sure on a Pocket PC that it is really closed and not still active in the background. It blocks the Com-Port and doesn´t give access to a navigation- or routing software on the Com-Port.
3. The PC version differs basicly only in its appearance from the Pocket PC version. The amount of function remains the same.

4. PC Version



5. Pocket PC/CE Version



HDOP - Horizontal Dilution Of Position

Risk of explosion when exposed to fire !

Explosion hazard upon exposure to fire! Don't expose the receiver to permanent temperature above 60℃/140°F!

6. Possible Sources of Malfunction and Troubleshooting

6.1 The blue LED does not light up after connecting it to the USB port. Make sure that the PC or notebook is switched on. When indicated you might test the USB port with another USB device. If another USB device works, please contact the support.

6.2 The blue LED does not light even after a long time of waiting, but you still don't receive any Satfix. The NL-464US needs up to 30min. on a different continent for its first Satfix. Therefor you need a free view to the sky. Choose a position for NL-464US which is far away from a house wall. Your can also use the included USB extension cable. A house wall causes high reflection and adds to time delay of the Satfix. Also the notebook can effect the reception. Therefor a short extension cable is included in the package.

6.3 Your PC does not support the auto-start function and does not start the CD ROM automatically. Please read under http://msdn2.microsoft.com/en-us/library/Aa969329.aspx

6.4. The NL-464US got in contact with water jet (water jet like e.g. under the shower or heavy rain with installation on the roof). Do not connect the receiver to the notebook etc.. It will be completely destroyed and cannot be repaired anymore. Please send the receiver with the description „water damage" to our support. The support will disassemble, dry and test the function of the receiver.

The Navilock repair center aims to be as fair as possible. Therefor we kindly ask you to give us the true reason for a defect. During the fault analysis, the support needs to find out if a third party, a water damage, a downfall damage, over voltage or wrong handling might be the reason for that.

Often malfunctions are caused by minor errors. It is not always necessary to immediately replace a product, because this will not correct a malfunction that is not caused by the GPS hardware.

Before contacting your dealer, please contact Navilock support. This will provide you with help in a fast and easy manner, and help avoid unnecessary replacement.

In such cases, describe the malfunction as accurately as possible in writing, add the details for your device and the used software as well as operating environment (operating system, servicepack version, CPU size and type, memory size, HDD type and interface, etc. and send an email to support@navilock.de.

A member of the support team will take care of your problem and work on a solution.

We hope you enjoy your Navilock product!

7. Specification

GPS Chipset	SiRF Star III e/LP
Frequency	L1, 1575.42 MHZ
C/A Code	1.023 MHz chip rate
Channels	20 all-in-view tracking
Sensitivity	-159 dBm
Accuracy	
Position Horizontal	5m 2D RMS WAAS enabled 10m 2D RMS WAAS disabled
Velocity	0.1m/sec 95% (SA off),
Time	1 micro-second synchronized to GPS time
Datum	
Datum	WGS-84
Acquisition Rate	
Hot start	1 sec., average (with ephemeris and almanac valid)
Warm start	38 sec., average (with almanac but not ephemeris)
Cold start	42 sec., average (neither almanac nor ephemeris)
Reacquisition	0.1 sec. average (interruption recovery time)
Protocol	
GPS Protocol	Default: NMEA 0183 (Secondary: SiRF binary)
GPS Output Data	NMEA 0183 MEA0183 V2.2 protocol, and supports command: GGA, GSA, GSV, RMC, VTG, GLL v2.2
GPS transfer rate	Software command setting (Default : 38400,n,8,1 for NMEA)
Dynamic Condition	
Acceleration Limit	Less than 4g
Altitude Limit	18,000 meters (60,000 feet) max.
Velocity Limit	515 meters/sec. (1,000 knots) max.
Jerk Limit	20 m/sec**3
Temperature	
Operating	-20~ 70℃
Storage	-20~ 80℃
Humidity	Up to 95% non-condensing
Power	
Voltage	5 Volt DC by USB Host input
Current	80mA typical
Physical Characteristics	
Dimension	2.6”L x 0.9”W x 0.4”H (65.5L x 23W x 11H mm)
Unit Weight	0.04 lbs (20g)
Certifications	
FCC	USA (Covers requirements for CANADA ICES-003)
CE	Europe
ROHS	Europe

8. Warranty period
Your GPS receiver will be repaired free of charge during the legal warranty period, provided the damage was not caused by external impact, moisture, fall or improper use. Your dealer will help you with words and deeds. Repairing goods can be send directly to

Navilock Repair Center
Beeskowdamm 13/15
D-14167 Berlin-Zehlendorf

Please send only parcels which are franked.

Please include a proof of purchase and a detailed error description. “doesn´t work” or “defect” is not detailed. Please point out also how often a defect occurs. **Transmittals which are not franked cannot be accepted, due to logistic reasons.**

9. Support
If you have further questions, please contact our customer support:
support@navilock.de / www.navilock.com

You can find current product information on our homepage: www.navilock.com

10. Final clause
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Declaration of conformity

The CE declaration of conformity can be found under http://www.navilock.de/support/ in the section of declaration of conformity.

WEEE-notice

The WEEE (Waste Electrical and Electronic Equipment)-directive, which became effective as European law on February 13th 2003, resulted in an all out change in the disposal of disused electro devices. The primarily purpose of this directive is the avoidance of electrical waste (WEEE) and at the same time the support of recycling and other forms of recycling in order to reduce waste. The WEEE-logo on the device and the package indicates that the device should not be disposed in the normal household garbage. You are responsible for taking the disused electrical and electronical devices to a respective collecting point. A separated collection and reasonable recycling of your electrical waste helps handling the natural resources more economical. Furthermore recycling of electrical waste is a contribution to keep the environment and thus also the health of men. Further information about disposal of electrical and electronical waste, recycling and the collection points are available in local organizations, waste management enterprises, in specialized trade and the producer of the device.

Compliance with RoHS

This product complies with the directive 2002/95/EC of the European parliament and the council from January 27th 2003 concerning the restricted use of dangerous substances in electrical and electronical devices (RoHS) as well as its modification.

Edition: 05/2010